

Application Number 09/742,625
Response to Office Action mailed September 6, 2007

REMARKS

The following is responsive to the Final Office Action dated September 6, 2007.

Claim Rejections Under 35 U.S.C. § 103(a)

A. Paragraph 3

Claims 37-39, 51-52, and 67-71 stand rejected under 35 U.S.C. 103(a) as obvious over DE 2224732 (hereafter DE '732) in view of US 3,529,993(hereafter Cummings), further in view of WO 9622338(hereafter Helmer). Applicants respectfully traverse the rejection. The applied references fail to disclose or suggest the inventions defined by Applicants' claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

The presently claimed invention provides a cost efficient manufacturing process for making polymer coated (primed) composite substrates directly from the press without any extra latex processing or heating/drying steps.¹ In the presently claimed embodiment of this process a primer coating composition is applied on a compressible mat and rapidly forms a crosslinked matrix. A topcoat composition is applied over the primer coating composition, and this construction is compressed and heated to form a polymer coated composite substrate. The rapidly crosslinking compounds used in the present invention eliminate the heating and drying steps required in previous processes. Moreover, the compositions are free of formaldehyde,² which is difficult to use in a manufacturing environment and is unacceptable to some customers.

The present rejection is based on the contention that it would have been obvious to one of ordinary skill in the art to use the fast hardening aqueous coating composition of Helmer as the "amino resin" in processes described in DE '732 in view of Cummings, since the traffic paint compositions in Helmer form a hard, smear-resistant, non-tracking surface very quickly after deposit of the coating under ambient conditions.³ Applicants respectfully submit that this assertion is based on impermissible hindsight.

¹ U.S. Patent No. 6,165,308 at col. 2, lines 36-40.

² *Id.*, at col. 2, lines 43-57.

³ Office Action dated April 23, 2007, page 5, first full paragraph.

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The recent Supreme Court case *KSR International Co. v. Teleflex Inc* permits rejection of a claimed invention as being obvious when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions to pick from to solve the problem.⁴ Here, however, the person of ordinary skill in the art is not presented with a finite number of solutions to pick from, but rather, an infinite number of potential choices.⁵ A search of the PTO website reveals that over 75,000 issued patents are directed to coatings.⁶ Of these over 75,000 patents (and the zillions of coating compositions disclosed therein) the Examiner has not established that a person of ordinary skill in the art, without the benefit of having read the instant application, would have any reason to focus on or pick the traffic paint composition of the Helmer reference. This is especially true given that the Helmer reference is directed to an end use (traffic paint) that is far removed from Applicants' field of endeavor (manufacture of composite substrates).

So, without the Helmer reference, what types of coating chemistries were available to the skilled artisan? As noted on page 2 of the translation, DE '732 discloses aminoplast or amino resins. The composition in Cummings is the reaction product of a polyanhydride and an amine, which the Examiner also characterizes as an "amino resin." Neither reference discloses or suggests Applicants' claimed claimed primer composition that includes a polyimine and a volatile base. An imine is generally understood to refer to a nitrogen-containing organic compound having a carbon-to-nitrogen double bond, while an amine is generally understood to refer to classes of compounds derived from ammonia (NH₃), which would not be expected to include the carbon-nitrogen double bond.⁷ In summary, the presently claimed primer composition is not an "amino compound" as taught by DE '732 and Cummings. Since the compositions are very different, knowledge of the amine compositions in DE '732 and Cummings would not provide the skilled artisan with any incentive to utilize the imine compounds in Helmer's traffic paint as a primer coating in a process for making a polymer

⁴ *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007).

⁵ The amino composition of the DE '732 reference is one of a nearly infinite number of potential choices for a person of ordinary skill in the art to pick from.

⁶ A search of the word "coating" in the abstracts or title fields of the Issued Patents database yielded over 75,000 hits.

⁷ See, e.g., *Hawley's Condensed Chemical Dictionary*, 13th ed. (1997).

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coated article.⁸ Applicants respectfully submit that under these circumstances the selection of the Helmer traffic paint composition from the zillions of possible choices would not be obvious to one of ordinary skill in the art, and the present obviousness rejection could only be attributed to the exercise of impermissible hindsight bias.

Further, the process in DE '732 requires that the primer coat composition be heated and dried prior to application of a topcoat, while the Helmer and Cummings references teach that their primer compositions are to be applied under ambient conditions without a topcoat. There is no teaching in Helmer or Cummings that would suggest to one of ordinary skill that their compositions could be successfully topcoated and heated in a press as required in the process described in DE '732.

For the reasons above, the imine compounds in Helmer would not be substitutable for the amino compounds in DE '732 and Cummings to provide the presently claimed invention. *KSR International Co. v. Teleflex Inc.* cautions that "[a] factfinder should be aware . . . of the distortion caused by hindsight bias and must be cautious against arguments reliant upon *ex post* reasoning."⁹ *KSR* does not permit selective picking and choosing bits-and-pieces of technology out of the nearly infinite possible available references.¹⁰ Nor can the combination come from the applicant's invention itself.¹¹ The present obviousness rejection is based on hindsight following review of the present disclosure, and is improper. Applicants respectfully submit that the process presently claimed in claims 37-39, 51-52 and 67-71 is not obvious under 35 U.S.C. § 103(a) over DE '732 in view of Cummings and Helmer. Reconsideration and withdrawal of the rejection are respectfully requested.

B. Paragraph 4

Claims 38-39 and 71 stand rejected under 35 U.S.C. 103(a) as obvious over DE '732 in view of Cummings, further in view of Helmer, and further in view of van der Hoeven (US 4,789,604). Applicant respectfully traverses the rejection. The applied references fail to disclose

⁸ The Examiner dismisses this argument because Applicants are "attacking the Helmer reference individually." The argument instead challenges the Examiner's contention that it would be obvious to substitute the imine composition in Helmer for the amino resins in DE '732 and/or Cummings.

⁹ *KSR Int'l Co.*, 127 S. Ct. at 1742.

¹⁰ *Id.*

¹¹ *Id.*, see, e.g. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992).

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or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

As noted above, the amino compounds used in DE '732 and Cummings are very different from the imine compounds described in Helmer. One of ordinary skill in the art would have no incentive to modify the process in DE '732 to replace the amino compounds with the compounds in Helmer, and such a modification would not have a reasonable expectation of success.

These deficiencies are not remedied by the van der Hoeven reference, which would further fail to provide one of ordinary skill in the art with an incentive to make the modification to the DE '732 process proposed by the Examiner. For at least this reason, the present obviousness rejection is based on hindsight following review of the present disclosure, and is improper. Applicants respectfully submit that the process presently claimed in claims 38-39 and 71 is not obvious under 35 U.S.C. § 103(a) over DE '732 in view of Cummings, Helmer and van der Hoeven. Reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims.


Please charge any additional fees or credit any overpayment to deposit account number 50-1778.

If questions remain regarding the above, or if the Examiner wishes to discuss any aspect of the present application, please contact the undersigned.

Date:

January 7, 2008
SHUMAKER & SIEFFERT, P.A.
1625 Radio Drive, Suite 300
Woodbury, Minnesota 55125
Telephone: 651.735.1100
Facsimile: 651.735.1102

By:


Name: H. Sanders Gwin, Jr.
Reg. No.: 33,242